Operating Instructions

SKC Deployable Cartridge Sampler (DCS) System

SKC Inc.
863 Valley View Road
Eighty Four, PA 15330

Form #38048 Rev 0907

DCS System Quick Guide

Sampling Head and Cartridge Installation

1. Disassemble sampling head: Unscrew inlet from cartridge holder section. Unscrew cartridge holder section from exhaust section. Clean parts and allow to dry.
2. Thread cartridge holder section onto exhaust section.
3. Insert cartridge into cartridge holder (arrow pointing toward exhaust).
4. Reinstall inlet section onto cartridge holder section.

Setup and Calibration

1. Set up sample pump. (*See Leland Legacy® Quick Guide on page 9. For advanced programming, see Leland Legacy Operating Instructions.*)
2. Ensure cartridge is installed in sampling head.
3. Thread calibration adapter into sampling head inlet.
4. Use tubing with quick-connect fitting to connect pump inlet to outlet of sampling head.
5. Use short tubing to connect inlet of calibration adapter to outlet of calibrator.
6. Calibrate pump flow rate to 10 L/min and record the pre-sample flow rate.
7. Disconnect calibrator and remove calibration adapter from sampling head.
8. Mount bracket at desired location.
9. Install sampling head on mounting bracket.
10. Install rain cover on sampling head.

Sampling

1. Turn on pump and record pertinent data. (*Leland Legacy pump may be started manually or automatically, see Quick Guide on page 9.*)
2. After desired sampling period, record sample stop time. Remove rain cover. Reinstate calibration train to verify pump flow rate. Record post-sample flow rate.
3. Turn off pump. Record pertinent information.
4. Remove sampling head: Use quick-connect to detach tubing from pump inlet. Remove tubing from sampling head. Remove sampling head from bracket. Move sampling head to a clean area.

Sample Removal

1. Disassemble sampling head: Unscrew inlet from cartridge holder section.
2. Lift cartridge from cartridge holder section, wrap in aluminum foil, and place in supplied Teflon® jar. Transport to lab.

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Indicates a reminder or note

Indicates a warning or caution

INTRODUCTION

The SKC Deployable Cartridge Sampler (DCS) System is a compact, portable, and battery-operated sampling system that ensures the ability to sample gaseous polycyclic aromatic hydrocarbons (PAHs), polyhalogenated dibenzo-p-dioxins (PHDDs), and polyhalogenated dibenzofurans (PHDFs) and particulate-associated PHDDs and PHDFs in ambient air. The system features the fully programmable constant flow Leland Legacy Sample Pump and an easy-to-use sampling head that houses a stainless steel cartridge. The cartridge can be loaded with a 47-mm quartz filter and PUF (EPA TO-9A) or XAD®-2 sorbent (EPA TO-13A). The easily deployed system is packaged in a portable heavy-duty Pelican® case from which the system operates.

The SKC DCS System includes a Leland Legacy Sample Pump with connection case and cable, charger (100-240 V), sampling head, calibration adapter, rain cover, sample tubing with quick-connect fitting, calibration tubing, and mounting bracket in a heavy-duty lockable carry case. Two external battery assemblies with adapters are packaged separately. ***Cartridges, filters, and sorbent media are available separately.***

PERFORMANCE PROFILE

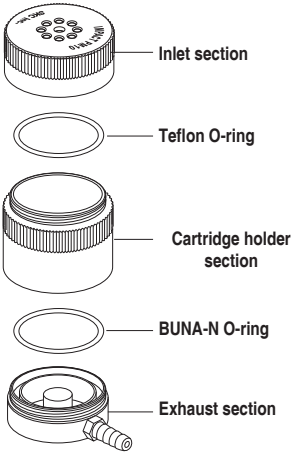
Flow Rate:	10 L/min
Run Time:	> 24 hrs on one battery charge
Power:	Rechargeable lithium-ion (Li-Ion) battery, 7.4 V, 12-Ah capacity†, 88.8 Wh
Battery Recharge Time:	15 hrs
Pre-filter: *(Not supplied with system)*	47-mm quartz, QM-A, 450-µm thickness
Sorbent: *(Not supplied with system)*	**EPA TO-9A:** PUF (polyether type), 40-mm diameter, cleaned **or** **EPA TO-13A:** XAD-2 sorbent, cleaned
Analysis:	**TO-13A:** Gas chromatography/mass spectrometry (GC/MS) **TO-9A:** High resolution gas chromatography/High resolution mass spectrometry (HRGC/HRMS)
Tubing:	3/8-in ID reinforced flexible PVC (supplied)
Temperature:	*Charging:* 32 to 113 F (0 to 45 C) *Operating:* 32 to 113 F (0 to 45 C) *Storing:* -4 to 95 F (-20 to 35 C)
Altitude:	Do not use pump beyond 7500 ft.
RFI/EMI Shielding:	CE marked
Case Dimensions:	18.5 x 14.1 x 6.9 in (47 x 36 x 18 cm)
Complete System Weight:	12.20 lbs (5.5 kg)
Sampling Head Dimensions:	2.6 dia. x 3.6 H x 3.8 L in (7 x 9 x 10 cm)
Sampling Head Weight: *(without cartridge)*	0.60 lb (.27 kg)
Cartridge Weight:	0.75 lb (.34 kg)

† *DCS Systems contain Li-Ion batteries and may be subject to special shipping regulations dependent upon quantity.*

PRINCIPLE OF OPERATION

A sample pump draws air at a flow rate of 10 L/min through nozzles on top of the sampling head and into the cartridge. The cartridge is designed to be loaded with a cleaned 47-mm quartz filter that collects particles and cleaned PUF or XAD-2 sorbent that adsorbs gases and vapors. The aluminum foil-wrapped cartridge is supplied in a Teflon jar so that the sample is protected from light and contamination during transport. The filter and sorbent media are combined for extraction followed by GC/MS analysis for EPA TO-13A or HRGC/HRMS for EPA TO-9A.

DCS Sample Head and Leland Legacy Sample Pump - the two main components of the DCS System



Exploded view of the DCS Sample Head

MEDIA PREPARATION

For Laboratory Use

Use clean hexane-rinsed Teflon-tipped forceps to handle filters.

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

Quartz Filter: Prepare following the procedure outlined in EPA TO-9A or TO-13A, Section 10.2.1. (*http://www.epa.gov/ttnamti1/airtox.html*)

XAD-2 Sorbent: Purchase precleaned or use procedure outlined in EPA TO-13A, Section 10.2.5.

PUF: Purchase precleaned or use procedure outlined in EPA TO-9A or TO-13A, Section 10.2.4.

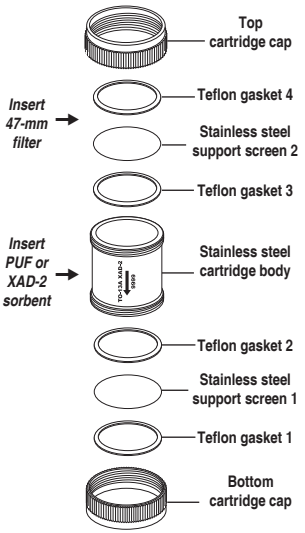
CARTRIDGE PREPARATION

For Laboratory Use

Use clean hexane-rinsed Teflon-tipped forceps to handle filters.

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

1. Rinse cartridge with appropriate organic solvent and allow to dry.
2. Ensure Teflon gasket 1, the stainless steel support screen 1, and Teflon gasket 2 are in place on bottom cartridge cap.
3. Insert PUF or XAD-2 into the cartridge.
4. Ensure the Teflon gasket 3 and stainless steel screen 2 are in place on cartridge body top.
5. Using cleaned forceps, align quartz filter with screen radially, and place Teflon gasket 4 on top of filter. Thread top cartridge cap onto cartridge.
6. Wrap the cartridge with hexane-rinsed aluminum foil, place in supplied Teflon jar, and label jar. Analyze (certify) at least 1 cartridge from each batch of cartridges prepared using the procedure described in Section 10.3 of EPA TO-9A or EPA TO-13A (*http://www.epa.gov/ttnamti1/airtox.html*) prior to field use. See Section 10.3.8 for acceptable background levels. Cartridges are considered clean for up to 30 days from date of certification when sealed in their containers.



Cartridge for EPA TO-13A

Deployment of Cartridges for Field Sampling

Immediately prior to field deployment, follow the procedure in EPA TO-9A or TO-13A, Section 10.4.

SAMPLING HEAD PREPARATION

Cleaning the Sampling Head

All cleaning, loading, and unloading should be conducted in a controlled environment to minimize any chance of potential contamination. When new or when using the sampler at a different location, all sample contact areas need to be cleaned. Rinse with appropriate organic solvent. Allow the solvent to evaporate before loading a cartridge.

For deployed applications where method-specified solvents are unavailable, use isopropyl (rubbing) alcohol or a clean tissue wipe.

Do not place any mechanical object in the inlet nozzles.

O-ring Care for the Sampling Head

Visually inspect the condition of the BUNA-N exhaust O-ring (*see illustration on page 3 for location*). Ensure the O-ring surface is smooth (i.e., without cracks, cuts, or other damage). Ensure the O-ring is fitted properly in its channel. Replace the exhaust O-ring if there is apparent damage, stretching, or thinning. It is recommended that the Teflon inlet O-ring be replaced by the manufacturer only.

Inserting a Cartridge into the Sampling Head

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

1. Disassemble sampling head (*see drawing on page 3 for placement of parts*).
   a. Unscrew inlet section from cartridge holder section.
   b. Unscrew cartridge holder section from exhaust section.

   Clean and allow to dry (*see Cleaning the Sampling Head on page 5*).

Disassemble sampling head.

2. Thread cartridge holder section onto exhaust section.

Thread cartridge holder onto exhaust section.

3. Remove cartridge from aluminum foil and insert into cartridge holder section. **Ensure airflow arrow on cartridge points to exhaust section.** The filter should be on the inlet side of the cartridge.

Insert cartridge into cartridge holder section.

4. Thread inlet section onto cartridge holder section until just tight. Further hand-tighten by 1/4 turn only.

Thread inlet section onto cartridge holder section.

SAMPLE PUMP OPERATION

The user may choose to:
- Operate the pump manually in the field (on/off)
- Program a schedule into the pump manually
- Program the pump for multiple schedules from a PC with optional DataTrac® for Leland Legacy Software (*see Ordering Information, Accessories on page 14*).

See page 9 for a Quick Guide to operate the SKC Leland Legacy Sample Pump. *For advanced programming, see the complete Leland Legacy Pump Operating Instructions.*

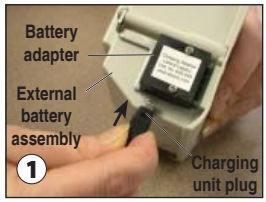
Charging the Battery

Completely charge a new battery pack using the SKC-approved charger (Cat. No. 223-241) before operating the pump. It may be necessary to charge the battery a few times before maximum battery capacity is achieved.

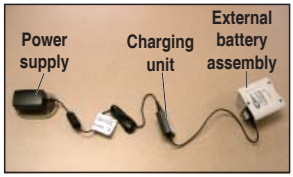
Cautions:

- **Do not charge or operate pump with or without charger in hazardous locations.**
- **Use only the SKC-approved charger for this pump. Use of an unapproved charger may damage the battery and pump.**
- **Use of a non-approved charger voids any warranty.**
- **Do not open, disassemble, short circuit, crush, incinerate, or expose the battery to fire or high temperatures.**
- **Tampering with the battery pack voids any warranty.**
- **Ensure proper orientation of charging cable before plugging it into the charging jack. Improper orientation/contact will short-circuit the battery and voids any warranty.**
- **Short-circuiting the battery pack will render it immediately inoperative.**
- **Failure to follow warnings and cautions voids any warranty.**

The battery pack may be kept on the SKC-approved charger for an indefinite time.



1. Insert the plug from the charging unit into the charging port on the battery adapter (on top of the external battery assembly).
2. Insert plug from power supply into the jack on the charging unit.
3. Install the appropriate wall plug on the power supply and plug power supply into a wall outlet.

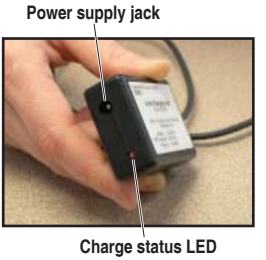


The battery will recharge in approximately 15 hours. For a complete charge, do not run the pump connected to the external battery assembly during charging. After charging is complete, disconnect

battery from charger and connect pump to battery (*see Battery Setup below*).

After charging the battery pack, it is good practice to run the pump for approximately 5 minutes before calibrating. This ensures the battery is in more steady-state conditions and improves the agreement in pre and post-sampling calibrations.

Reading the Charging Status LED



The Li-Ion Charging Unit indicates battery charge status via an LED on the unit that blinks in specific patterns. Observe the LED steadily for > 5 seconds to read charge status.

LED Action				Charge Status
ON ✸ steady				Charge in progress
ON ✸ 2 sec	OFF ○ .25 sec	ON ✸ 2 sec	(Repeats)	Approximately 80% charged
OFF ○ 2 sec	ON ✸ .25 sec	OFF ○ 2 sec	(Repeats)	Charge completed

For more information on SKC pump batteries, go to http://www.skcinc.com/instructions/1756.pdf.

Battery Setup

1. Insert the plug on connecting cable from pump into the jack on the battery adapter (on top of the external battery assembly).

2. Insert external battery assembly into a foam compartment in the case. Ensure there is no tension on the connecting cable.

Battery Replacement

1. **Record all necessary data before unplugging pump from battery.**
2. Remove plug on connecting cable from jack on battery adapter (on top of the external battery assembly).
3. Insert plug on connecting cable into battery adapter jack on new, fully charged external battery assembly.
4. Insert external battery assembly into foam compartment in case. Ensure there is no tension on the connecting cable.

Leland Legacy Quick Guide

Terms »

Star button ✷

• Scrolls through run time data and Setup options

Up and down arrow buttons ▲▼

• Toggle between display choices and increase or decrease sampling parameters in Setup

Button sequence

▼ ✷= press buttons individually

[▲▼] = press simultaneously

✷▲▼✷ = security code, always press in sequence

Security code ✷▲▼✷

• Prevents unauthorized changes to the pump's sampling program

Programming Sequences »

- **To activate pump (e.g., to change pump from Sleep to Hold):**
  Press any button.

- **To change pump from Hold to Run or Run to Hold:**
  Press [▲▼].

- **To reset accumulated data:**
  Press [▲▼], then ✷▲▼✷. Press ✷ until *CLr* displays then press [▲▼]; press ✷ until *End* displays then press [▲▼].

- **To set pump flow rate:**
  Press [▲▼], then ✷▲▼✷. Flow rate and SET flash. Press ▲ or ▼ to change flow rate. Press ✷ until *End* appears then press [▲▼] to save setting and place pump in Hold.

- **To calibrate flow rate with standard calibrator:**
  Press [▲▼], then ✷▲▼✷. Flow rate and SET flash. Press ▲ or ▼ to change flow rate. Press ✷ once. *ADJ* displays. Press ▲ or ▼ until desired flow rate is indicated on calibrator. When finished, press ✷ until *End* displays then press [▲▼] to save new setting and place pump in *Hold. For CalChek Calibration, see operating instructions.*

- **To change temperature scale from F to C or C to F:**
  Press [▲▼], then ✷▲▼✷. Press ✷ until temperature displays. Press ▲ or ▼ to switch units; press ✷ until *End* displays then press [▲▼] to save new setting.

- **To change atmospheric pressure scale (mm, mb, In):**
  Press [▲▼], then ✷▲▼✷. Press ✷ until pressure displays then press ▲ or ▼ to switch units; press ✷ until *End* displays then press [▲▼] to save new setting.

- **To change time scale (12 Hr/24 Hr/Dela):**
  Press [▲▼], then ✷▲▼✷. Press ✷ until 12 Hr, 24 Hr, or Dela displays then press ▲ or ▼ to switch units; press ✷ until *End* displays then press [▲▼] to save new setting. *To set delayed start (Dela), see operating instructions.*

- **To change clock:**
  Press [▲▼], then ✷▲▼✷. Press ✷ until clock displays then press ▲ or ▼ to change flashing hour; press ✷ to move to minutes and ▲ or ▼ to change setting. Press ✷ until *End* displays then press [▲▼] to save new setting.

- **To change the sampling time function:**
  Press [▲▼], then ✷▲▼✷. Press ✷ until *ST L/min* displays then press ▲ to change flashing digit; press ✷ until *End* displays then press [▲▼] to save new setting. To delete, follow above steps and press ▼ until 0 appears. Exit Setup.

Note: When in Setup, choosing Esc instead of End will exit Setup without saving new settings.

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CALIBRATION AND SAMPLING

Calibration

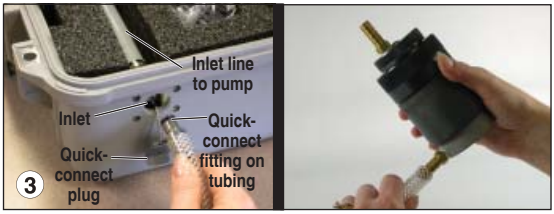
Calibrate pump flow rate with the sampling head loaded with a cartridge in line. ***See pump and calibrator operating instructions.***

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

Ensure pump has run for 5 minutes before calibrating. Ensure rain cover is removed from inlet and that sampling head is completely assembled with a fully loaded cartridge (see Inserting a Cartridge into the Sampling Head).

1

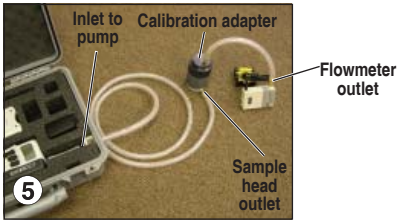
Thread calibration adapter into sampling head inlet.



Unscrew quick-connect plug on side of case. Use tubing with quick-connect fitting to attach case (pump) inlet to exhaust of sampling head.

Ensure O-ring is installed on the quick-connect fitting before inserting it into the inlet. Absence of the O-ring can affect measurements. See page 14 for Replacement Parts.

Use provided short length of calibration tubing to connect inlet of calibration adapter to outlet of a calibrator to form a calibration train.



Set and calibrate pump flow rate to 10 L/min (see Leland Legacy Quick Guide on page 9). Record the pre-sample flow rate. See pump and calibrator operating instructions.

When calibration is completed, disconnect calibrator and tubing from calibration adapter. Remove calibration adapter from sampling head.

6

Sampling

Locate system in an unobstructed area, at least 6 feet (2 meters) from any obstacle to airflow.

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

Before use, allow pump to equilibrate after moving it from one temperature extreme to another.

1. Attach mounting bracket at the desired location and at breathing zone height (6 ft or 2 m) using wire ties or other fasteners. Mount sampling head loaded with cartridge on mounting bracket by threading clamp knob into bottom of sampling head.

2. Insert screw on rain cover into top of the sampling head inlet and rotate cover until tight.

3. Turn on pump and record sample start time, ambient temperature, ambient pressure, and other pertinent data.

Sample start time and duration can be programmed into the Leland Legacy Sample Pump in advance and sampling may be started manually or automatically.

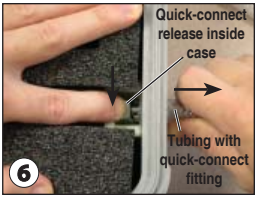
Record all necessary data before disconnecting pump from battery and reconnecting to new battery.

4. After desired sample time has elapsed, record sample stop time. Remove rain cover from sampling head and reinstate calibration train *(see Calibration on page 10)*. Record post-sample flow rate.

5. Turn off pump. Record total volume, ambient temperature, ambient pressure, and other pertinent data.

6. Reach inside case and press quick-connect release while pulling tubing from case (pump) inlet. Remove tubing from sampling head. Remove sampling head from bracket.

7. Remove sampling head to a clean area.



Press quick-connect release to remove tubing.

Technical Tidbits

- The supplied rain cover should be used for all outdoor sampling.
- Keep Leland Legacy Sample Pump inside the Pelican case and the case closed during sampling to protect sample pump from weather.

SAMPLE REMOVAL, SHIPPING, AND ANALYSIS

Removing the Cartridge from the Sampling Head

Wear disposable, clean, lint-free nylon or powder-free surgical gloves to handle the sorbent and cartridge.

1. Unscrew inlet section from cartridge holder section.

Ensure cartridge remains vertical to avoid loss of sample from filter.

Remove inlet section from cartridge holder section.

2. Lift cartridge from cartridge holder section.

Lift cartridge from cartridge holder section.

3. Wrap cartridge in supplied foil or clean aluminum foil and place in supplied Teflon jar to protect sample from light and contamination.

Wrap cartridge in foil and insert in Teflon jar.

Transporting Samples

Package and transport samples and blanks under ice (< 39.2 F [4 C]) until receipt at the analytical laboratory.

Sample Storage

Store samples under ice (< 39.2 F [4 C]) in the field or at < 39.2 F (4 C) in a refrigerator in the laboratory. Extraction must be performed within seven days of sampling and analysis within 40 days after extraction.

Removing Filter and Sorbent from Cartridge

For Laboratory Use Only

1. Remove filter and sorbent(s) from cartridge.
2. Combine for extraction.
3. a. For XAD-2 sorbent: Use procedure outlined in EPA TO-13A, Section 12.2.
   b. For PUF sorbent: Use procedure outlined in EPA TO-9A, Section 12.1.

Analysis

TO-13A: Gas chromatography/mass spectrometry (GC/MS)

TO-9A: High resolution gas chromatography/High resolution mass spectrometry (HRGC/HRMS)

ORDERING INFORMATION

Description	Cat. No.
DCS System† includes a Leland Legacy Sample Pump with connection case and cable, charger (100-240 V), sampling head, calibration adapter, rain cover, sample tubing with quick-connect fitting, calibration tubing, and mounting bracket in a heavy-duty lockable carry case. Two external battery assemblies with adapters are packaged separately.	
Cartridges, filters, and sorbent media available separately	**100-3960**

† *DCS Systems contain Li-Ion batteries and may be subject to special shipping regulations dependent upon quantity.*

DCS Cartridges	
DCS Cartridge Marked for TO-9A, supplied **without** media in Teflon jar	**226-200**
DCS Cartridge Marked for TO-13A, supplied **without** media in Teflon jar	**226-201**

Media *Required. Not included in system. Select based on application.*	
PUF, (polyether type), 40-mm diameter, cleaned, each PUF wrapped in foil and supplied in glass jar with lid, pk/3	**P226DCS**
XAD-2 Sorbent, 100 gm, 20/60 mesh size, cleaned, supplied in glass jar with lid	**P226201**
Quartz Filter, QM-A, 47 mm, 450-µm thickness, pk/100	**225-1811**

Accessories	
Forceps, stainless steel	**225-8371**
DataTrac® for Leland Legacy Software includes software on CD, DataTrac adapter, DataTrac cable, *requires Windows 98 or higher and available serial port or USB to serial adapter that is compatible with the PC and system*	**877-92**

Replacement Parts	Cat. No.
DCS Sampling Head	**225-620**
Quick-connect Fitting O-rings, pk/3	**P31996**
Rain Cover, grey	**225-398**
Mounting Bracket	**225-399**
Stainless Steel Support	**225-2647A**
Quick-connect Fitting, on 6.5-ft reinforced flexible PVC tubing	**P42741**
Reinforced Flexible PVC Tubing, 6.5 ft	**P30004**
Calibration Tubing, 1 ft, reinforced flexible PVC	**P300041**
Silicone Tubing, 0.4 ft, pk/2	**P30255A**
DCS Case, Pelican, with foam and hardware	**225-3901**
Calibration Adapter	**225-394**
Mass Flow Controller	**P16110**
Leland Legacy Pump Operating Instructions	**P40075**
Leland Legacy Pump Quick Guide	**P37138**
Quick-connect Plug with retaining chain	**P42742**
External Battery Assembly with battery adapter	**223-247**
Battery Adapter	**223-248**
Connection Case with cable and plug	**223-249**

LI-ION BATTERY SHIPMENT

Rechargeable, lithium-Ion batteries for use with SKC sampling pumps have been tested in accordance with the UN Manual of Tests and Criteria and are designated as UN3091. They have a watt-hour (Wh) rating below 100.

For air shipments:
Per 2009 IATA regulations, packaging must meet the specifications of and contain labeling and documentation required by IATA Packing Instructions 965, 966, and 967. Per these instructions:

- Boxes containing Li-Ion batteries only cannot exceed a maximum gross weight of 22 lbs (10 kg).
- The maximum number of batteries packed with equipment is the number required to power equipment in the box plus 2 spare batteries per unit.
- There is no maximum limitation for batteries contained within equipment.

For ground shipments:
U.S. DOT regulations specify a limit of 24 or fewer battery cells in one shipping box. To be exempt from Dangerous Goods Shipping requirements, the box must contain 24 or fewer cells. Therefore, limit any box to be shipped via ground to the following number of pumps:

- Leland Legacy Pump - 2 pumps

Contact SKC for more information or refer to the regulatory authority in your area.

SKC INC.
LIMITED ONE YEAR WARRANTY

1. SKC warrants that its instruments provided for industrial hygiene, environmental, gas analysis, and safety and health applications are free from defects in workmanship and materials under normal and proper use in accordance with operating instructions provided with said instruments. The term of this warranty begins on the date the instrument is delivered to the buyer and continues for a period of one (1) year.

This warranty does not cover claims due to abuse, misuse, neglect, alteration, accident, or use in application for which the instrument was neither designed nor approved by SKC Inc. This warranty does not cover the buyer's failure to provide for normal maintenance, or improper selection or misapplication. This warranty shall further be void if changes or adjustments to the instrument are made by other than an employee of the seller, or if the operating instructions furnished at the time of installation are not complied with.

2. SKC Inc. hereby disclaims all warranties either expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of these instruments. No description of the goods being sold has been made a part of the basis of the bargain or has created or amounted to an express warranty that the goods will conform to any such description. Buyer shall not be entitled to recover from SKC Inc. any consequential damages, damages to property, damages for loss of use, loss of time, loss of profits, loss of income, or other incidental damages. Nor shall buyer be entitled to recover from SKC Inc. any consequential damages resulting from defect of the instrument including, but not limited to, any recovery under section 402A of the Restatement, Second of Torts.

3. This warranty extends only to the original purchaser of the warranted instrument during the term of the warranty. The buyer may be required to present proof of purchase in the form of a paid receipt for the instrument.

4. This warranty covers the instrument purchased and each of its component parts.

5. In the event of a defect, malfunction, or other failure of the instrument not caused by any misuse or damage to the instrument while in possession of the buyer, SKC Inc. will remedy the failure or defect without charge to the buyer. The remedy will consist of service or replacement of the instrument. SKC Inc. may elect refund of the purchase price if unable to provide replacement and repair is not commercially practicable.

6. (a) To obtain performance of any obligation under this warranty, the buyer shall return the instrument, freight prepaid, to SKC Inc., at the following address:

SKC Inc., National Service Center
863 Valley View Road
Eighty Four, PA 15330 USA

(b) To obtain return authorization information or for further information on the warranty performance you may telephone 724-941-9701 at the above address. See Service Policy section in operating manual (if applicable).

7. This warranty shall be construed under the laws of the Commonwealth of Pennsylvania which shall be deemed to be the situs of the contract for purchase of SKC Inc. instruments.

8. No other warranty is given by SKC Inc. in conjunction with this sale.

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Notice: This operating instruction may not address all safety concerns (if any) associated with this product and its use. The user is responsible for determining and following the appropriate safety and health practices and regulatory limitations (if any) before using the product. The information contained in this document should not be construed as legal advice, opinion, or as a final authority on legal or regulatory procedures.